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Research on the Innovative Path of English Education in the Context of the Internet Era

Ping An[1,a,*]

[1]*College of Foreign Studies SCAU, South China Agricultural University, Guangzhou, Guangdong, China*
a. 1287434698@stu.scau.edu.cn
**corresponding author*

Abstract: The rapid development of network technology has not only affected the original teaching methods of schools but also added new vitality to the development of Chinese universities. The need for innovation in English education has been widely acknowledged, but there are still shortcomings in using digital technology to empower foreign language teaching based on the current situation of English teaching. The purpose of this article is to examine the problems and obstacles that exist in traditional English education from the view of Urie Bronfenbrenner's Theory of Bioecology (Five Environmental Systems) and find innovative ways to reform English education in a network environment, where opportunities and challenges are present. To further promote the integration of information technology and college English education, this article proposes suggestions such as building an information teaching platform, establishing a systematic curriculum system, providing a diverse learning environment, improving the level of information-based teaching for teachers, innovating teaching evaluation systems, innovating college English teaching concepts, and constructing a long-term mechanism for the curriculum. By implementing these suggestions, universities can greatly improve the quality of English education and enhance the English proficiency and cultural literacy of college students.

Keywords: Network, English Education, Bioecological Theory, Innovative Strategies

1. Introduction

In the vast field of English education, with the acceleration of globalization and the rapid development of technology, traditional education models are facing unprecedented challenges and opportunities. To address these challenges and capitalize on opportunities, it is crucial to explore innovative paths in English education.

The advancement of technology has led to new technologies like artificial intelligence and big data providing more possibilities for English education, but also posing challenges to traditional educational models. To improve English education's quality and efficiency, it is necessary to break free from traditional models and innovate. With the advent of new teaching resources, platforms, and methods, such as micro classes, MOOCs, and micro videos, English teaching is now open to innovation in the Internet age. With the help of new media technologies, English knowledge can be presented in a three-dimensional way, and the construction of new learning platforms has continuously enhanced students' awareness of self-directed learning. The integration of English

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teaching and learning is closer, and the teaching results achieved are more significant. However, this new reform path has also brought many problems. It is necessary to think and research how to seize innovation opportunities, address the shortcomings in teaching reform, and achieve comprehensive reform in English teaching.

In light of globalization, it is clear that English is the primary language for international communication. However, traditional English education models often focus on imparting grammar and vocabulary, neglecting the cultivation of students' practical application abilities, resulting in a lack of practical communication skills with foreigners. This article analyzes the problems and obstacles in traditional English education from the perspective of ecosystem theory by American psychologists Yuri Brown and Brenner and combines micro, meso, and external systems to analyze the impact of the current situation of the traditional education environment on the personal development of students.

2. Problems and Obstacles in English Education

The analysis of problems in English education is based on ecosystem theory. The bioecological theory proposed by American psychologist Urie Bronfenbrenner (1917-2005) describes the systems of interactions that influence individual development. In the view of Urie Bronfenbrenner, there is a constant and dynamic interaction between individuals who are developing and the current environment. As this interaction process becomes increasingly complex, development occurs. The microsystem is located in the innermost layer of the environmental hierarchy, and it describes the immediate environment for individual activities and interactions. The mesosystem is the second level of the environment, which encompasses the connections or interrelationships between various microsystems. Urie Bronfenbrenner thinks that development can be optimized if there are strong positive connections between microsystems. The third level is the exosystem. It refers to a system in which children are not directly involved but have an impact on their development. The fourth system is known as a macro system, and it is the culture, subculture, and social environment that are found within the three other systems.

2.1. Low Timeliness (Microsystem)

Microsystems are defined as patterns of behavior, roles, and interpersonal relationships that take place in a particular environment, such as a family, school, workplace, or neighborhood. These environments have a direct impact on individuals every day. Social relationships are directly related to individuals and bidirectional interactive processes are both included in microsystems. Traditional teaching methods in English education have low timeliness. This article reveals that the way teachers treat students in traditional offline teaching has a certain impact on their learning efficiency by studying microsystems.

The microsystem perspective emphasizes the interactions between individuals and their environment, as well as how these interactions shape their cognition, emotions, and behavior. From the perspective of knowledge transmission, traditional English education usually adopts a "teacher lectures, students listen" approach, which can indeed transmit a large amount of language knowledge to students to a certain extent. However, this approach often overlooks the initiative of students in the process of knowledge construction, leading them to become passive recipients of knowledge rather than active explorers and builders. This one-way knowledge transfer model limits students' thinking development and innovation ability.

Secondly, in traditional English education, there is often a lack of interaction between teachers and students, and the majority of classroom time is dedicated to teacher explanations according to the perspective of interaction between teachers and students. This teaching model makes it difficult for

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students to fully express their views and ideas, as they lack sufficient opportunities for participation. The absence of an interactive learning environment can negatively impact the effectiveness of students' learning, as well as hamper their interest and enthusiasm in learning.

Furthermore, from the perspective of learning evaluation, traditional English education usually focuses on examining language knowledge such as grammar and vocabulary, while neglecting the evaluation of students' language application ability and comprehensive quality. This evaluation method leads students to focus too much on mastering textbook knowledge while neglecting the true purpose of language learning - communication and application. Under this evaluation method, students often lack opportunities to practice and apply English, resulting in a significant gap between their language abilities and actual needs.

Finally, from the perspective of the learning environment, traditional English education is often limited to classrooms and within schools, lacking connection and interaction with the real world. This closed learning environment makes language learning for students lack authenticity and vividness, making it difficult to stimulate their interest and motivation in learning. Meanwhile, this environment also limits students' ability to access external resources and information, affecting their knowledge updating and expansion.

The fast pace of teaching and the large number of students make it hard for teachers to receive timely and effective feedback on teaching information, and they can't achieve a comprehensive and systematic grasp of student status. In traditional English teaching, teachers face dozens of students to teach and impart knowledge uniformly. However, when there is a significant difference in students' English foundation and knowledge reserves, it also brings great difficulties to the daily teaching of teachers [1]. There are relatively few ways and platforms for students to access various knowledge, and the microsystem emphasizes the importance of two-way interaction. However, the current English education model mainly focuses on the single output of teachers, so the learning content of students is limited, and difficult to achieve good personal development.

2.2. Disadvantages of Singularity and Homogenization (Mesosystem)

Through the examination of the mesosystem, it is found that individual behavior patterns vary in different environments. Singularity and homogenization hinder traditional teaching methods, and the traditional teaching model that relies mainly on teachers to impart knowledge in the classroom is no longer effective in boosting students' interest in learning. Typically, the English learning model is centered on the teacher, with textbooks serving as auxiliary resources and classroom teaching being the primary form. Although this model lays a foundation for students in English, it often cannot meet their personalized development needs [2].

Firstly, as a mesosystem, the educational philosophy and teaching methods of schools have a profound impact on students' English learning. Traditional English education often focuses on teaching basic knowledge such as grammar and vocabulary, while neglecting the cultivation of students' language practice ability and comprehensive quality. Students find it difficult to adapt to the demands of modern society due to their overreliance on textbook knowledge, lack of ability to apply English in practice, and difficulty adapting to the educational model. In addition, the mutual influence between peers is also a factor that needs to be considered from a mesoscopic perspective. In traditional English education, communication and interaction between students are often insufficient, lacking opportunities for cooperative learning and exploratory learning. The development of students' overall quality may be affected by a lack of cooperation and team spirit among them when learning English in this environment.

The individual development of students will be influenced by their environment. Therefore, in the age of the Internet, English education needs to create a diversified, personalized, and immersive

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English learning environment, optimize the school's English education environment, and stimulate students' interest and potential.

2.3. Insufficient Development of Online Teaching Platforms (Exosystem)

Although the exosystem is made up of two or more interrelated environments, it differs from the mesosystem system in some respects. Exosystems include at least one environment that is not directly involved by individuals, including schools where students grow and learn, English teaching environments, and social networks. The impact of this system on individual development is not directly evident. For instance, there is a certain gap between universities, particularly in the construction of campus modernization. Some schools rely on traditional offline teaching and have insufficient development of online teaching platforms. Some universities lack funds for the development of teaching platforms, resulting in various internal facilities being unable to support teachers' modern information teaching work, gradually becoming disconnected from the era of information sharing [3]. Many students from universities have provided feedback online about the harsh living environment on campus. Moreover, the modernization of dormitories is even more unimaginable. Secondly, when schools are equipped with intelligent and digital equipment, there is a lack of regular maintenance personnel, resulting in frequent equipment problems and low usage rates. After a certain device encounters a problem, the only way to return it to the manufacturer for inspection and repair is to go through a long waiting period for repair. After the equipment maintenance is completed, the normal teaching progress of the English classroom will be affected. Information-based teaching cannot continue unless it is necessary to ensure progress in teaching. The operation of some electronic devices is quite complex, and due to the limited professional ability of teachers, it is not possible to ensure that electronic information devices are fully utilized in the classroom [3]. Modern equipment construction has a minor impact on campus, but it directly impacts the smooth implementation of English information technology teaching in colleges and indirectly impacts the individual development of students.

3. The Internet Age and English Education: Opportunities and Challenges

3.1. Opportunities

3.1.1. External Environment

Firstly, The development of higher education worldwide has seen a new trend in digital transformation, which has led to the emergence of new models, formats, and professions due to the new generation of digital technology. To adapt to social and economic development, education digitization is now mandatory and has been elevated to a national strategic priority. In addition, the growth of the national economy and society has created new requirements for the advancement of foreign language talents in universities. China needs English as an indispensable language resource to continue its opening up to the outside world, and therefore, it must cultivate a significant number of talents with a global perspective, international awareness, and cross-cultural communication skills, who are familiar with international rules and proficient in international negotiations. By providing enough high-quality talent support, China can promote national reform and opening, socio-economic development, fulfill international obligations, participate in global governance, and build a community with a shared future for mankind. Once again, the new normal of teaching in the post-pandemic era is accelerating the digital transformation of English teaching. China has built a rich and diverse range of online teaching resources that are available for selection and cover various regions [4]. After the epidemic, education is no longer able to return to the "normal" before the epidemic, but a "new normal" that has been comprehensively reconstructed in terms of educational goals,

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educational content, school organization, educational forms, and teaching methods after the "abnormal" period of the epidemic [5].

3.1.2. Endogenous Development Needs

Firstly, keeping up with the times and inheriting development is a fine tradition in English education and teaching in China. This is aimed at meeting the new requirements of the new era for the development of higher education, addressing the concerns of teachers and students, and fully supporting higher education in cultivating different new talents that meet the needs of national economic and social development. Secondly, how to efficiently utilize limited classroom time and space, optimize teaching effectiveness, and promote effective learning has become one of the inherent demands of English teaching in the digital age.

Secondly, the new generation of students grows up with digital devices and applications such as the Internet and smartphones. They are more skilled and comfortable with the use of digital technology and have higher requirements and expectations for digital transformation. The development of the Internet provides students with ubiquitous learning methods and diversified knowledge sources. Students are more inclined to acquire knowledge, share information, and express opinions through the Internet, social media, online courses, and other ways. Students' interest in learning is not being stimulated by the traditional teaching model, which relies mainly on teachers to impart knowledge in the classroom. No matter how diligent and hardworking teachers are, without the full and effective participation of students, improving the quality of college English education and teaching will ultimately be nothing but empty talk [4]. Therefore, the tendencies of the new generation of students also provide important opportunities for innovation in English education. To innovate English education, it is necessary to fully consider the tendencies of the new generation of students, utilize internet technology and digital teaching resources, create interactive and personalized learning experiences, and meet the diverse learning needs of students.

3.2. Challenges

3.2.1. Lack of Mature Models for the Application of New Media

According to the analysis of the emergence and development of new media, it is not designed specifically for educational needs, especially in terms of functional implementation. It primarily adheres to the logic of digitization, informatization, and networking. The fragmentation of practical dimensions has occurred due to the absence of unified theoretical support for the use of new media in English education in universities, from this perspective. Despite the widespread acceptance of English education in universities from the perspective of new media, it has not yet developed a mature model. Teachers can use new media to impart English knowledge freely, and at the same time, it can eliminate the appearance of new media in English classrooms. Given this characteristic, the value of new media is often "shallow" utilized. For example, in classroom teaching activities, using new media to display teaching content is essentially the same as "blackboard writing". For example, in oral and listening teaching activities, using new media to display videos and audio is essentially the same as recording machines and teacher oral broadcasts. Therefore, how to effectively integrate new media resources and maximize their effectiveness in English education is an area that has not yet developed a mature model. This lack of mature models poses various challenges for English education in utilizing new media for innovation.

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3.2.2. New Media Exacerbates Knowledge Fragmentation

New media, which is an important product of Internet technology development, has a double-edged sword attribute, irrespective of its application value. Overdependence on new media or excessive avoidance of new media will cause problems. At present, in two scenarios of English education in universities, both inside and outside the classroom, there are two extremes in the use of new media: on the one hand, New media in the classroom environment is too restricted, and teachers only use it as a tool to reduce labor costs, on the one hand. On the other hand, outside of the classroom, college students highly rely on new media to engage in learning, life, and social activities and have long been accustomed to the fragmented way of receiving information. In this context, if new media is further utilized to innovate English education in universities, the fragmentation of English knowledge will inevitably intensify. However, this phenomenon is not entirely negative. The key lies in how teachers optimize and integrate knowledge fragments. In a sense, new media tests the professional development ability of college English teachers.

3.2.3. Intensify the Decline in Independent Thinking Ability

The significant decline in independent thinking ability is not conducive to the cultivation of innovative talents in the long run. The Internet's development has made students too dependent on it and lacking in thinking and exercise, which is detrimental to their development. For teachers, it is reflected in the singularity of teaching. Despite the use of network technology in the teaching process by some English teachers, their teaching thinking has not changed. The focus on a single feature in the design of teaching activities and the planning of teaching content prevents students from achieving diversified learning.

3.2.4. Unproficient in Internet Technology

Firstly, technological challenges are the primary issue faced by teachers [6]. As network technology develops rapidly, the use of new media and digital tools in English education is becoming increasingly common. However, teachers have relatively weak information awareness, lack basic information sharing awareness, and enthusiasm for applying information technology in classroom learning. Their goal is to complete basic tasks, and there is a lack of soil for nurturing the flower of information technology in the classroom, which hinders the improvement of the quality of English teaching work. The teacher's professional ability is limited and cannot guarantee the full utilization of electronic information equipment in the classroom [7].

Secondly, the challenge of educational philosophy cannot be ignored. Traditional English education focuses on imparting knowledge and cultivating exam-taking skills, while online English education places more emphasis on students' self-learning ability, innovation ability, and cross-cultural communication ability. Teachers must replace traditional educational concepts with a focus on cultivating students' comprehensive qualities and abilities, not just exam-taking skills.

4. Suggestions

4.1. Building an Information Teaching Platform

Educators should actively learn and master new media technologies, and understand their application prospects and potential in English education. Through in-depth research and practice, explore new media teaching models and strategies suitable for English education, and provide technical support for innovation in English education. Creating an information teaching platform can expand the options for obtaining teaching resources and enhance the co-creation and sharing of online teaching

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resources, which can aid in the efficient organization of new media resources. The online teaching system can summarize various English learning materials and files, expand the teaching resource library, provide convenience for students to learn English, master various English knowledge points, and better complete various learning tasks. Moreover, when students encounter difficult-to-understand English knowledge during the learning process, they can seek help from teachers promptly through the online teaching system, and have sufficient communication and exchange with teachers. Teachers can establish breakthrough and guidance sections for key and difficult points raised by students, promoting the completion of each teaching link [8]. Developing online courses enables the provision of both independent and complete courses and modular courses are designed to meet the learning needs of different students. Teaching technology tools can be introduced to enhance the interactivity and fun of the courses, thereby stimulating students' interest in learning [9].

4.2. Establish a Systematic Curriculum System

The systematic and coherent nature of knowledge must be taken into account when designing English education courses to prevent excessive fragmentation of knowledge.

Designing orderly course modules and themes guides students to gradually deepen their learning and establish a complete knowledge framework. Although new media has intensified knowledge fragmentation, it has also provided abundant learning resources for English teaching. Teachers can filter and integrate high-quality online courses, video tutorials, learning websites, and other resources to provide students with systematic and comprehensive learning materials. Teachers need to guide their students in exploring a certain knowledge point in depth and understanding the principles and logic behind it as part of their teaching process. Linking and integrating knowledge, helps students build a complete knowledge system, avoiding knowledge isolation and fragmentation. The ability of self-directed learning is the key to dealing with knowledge fragmentation. Teachers can encourage students to use new media for self-directed learning, such as online reading, watching teaching videos, etc., while providing learning guidance and support. Cultivate students' ability to screen and integrate information, enabling them to filter valuable content from massive amounts of information and engage in in-depth learning and thinking.

4.3. Provide a Diverse Learning Environment

Universities can utilize information network technology to provide a diverse and interactive learning environment, enhancing students' interest in learning English. The use of network technology can create diverse teaching scenarios for students to help them master English knowledge and cultivate English learning thinking [8]. When teaching English, teachers can make full use of learning software to engage students and conduct oral training based on their roles, allowing them to enhance their English speaking abilities while watching videos, thereby realizing the unique charm of the English language and enhancing their desire for English learning. In the new media environment, students need to have the ability to learn independently and innovate to adapt to the rapidly developing society. Educators should focus on cultivating students' abilities and stimulating their innovative thinking and creativity by guiding them to use new media technologies for self-directed learning and exploration. In addition, educators should encourage students to participate in various practical English activities and competitions, improve their English application skills and comprehensive quality, and enhance their ability to think independently.

4.4. Improve the Level of Information-Based Teaching for Teachers

To master network technology operation and teach information-based English, colleges, and universities should actively organize teachers to receive Internet information technology training.

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Universities should provide training to teachers on the latest computer software operations, network technology applications, platform data collection, and application abilities. Moreover, colleges and universities could arrange for teachers to visit new media enterprises and exchange new media operation processes with appropriate staff members, allowing them to participate in the application of new media technology, experience the strong charm of Internet technology, and enhance their information literacy [8]. Ensure that teachers are familiar with information technology and proficient in operating various software such as multimedia, to add visual and audiovisual experiences to students in English classrooms and improve classroom teaching effectiveness.

4.5. Innovative Teaching Evaluation System

Teachers are required to make full use of Internet technology under the context of 'Internet Plus' to innovate the teaching evaluation system and achieve dynamic evaluation of students. Big data technology can be utilized by teachers to monitor the learning process of students and analyze their learning behavior, which includes their completion of extracurricular homework, in-class test results, exam scores, and so on. All of this can be tracked and analyzed using big data technology to timely, accurately, and effectively evaluate the learning process of students. By analyzing big data technology, teachers can quickly comprehend the weak links in student learning, pinpoint problems in the learning process, and then make effective adjustments to teaching, narrowing the gap between actual teaching and teaching objectives [10]. The application of new media technology has revolutionized the evaluation and feedback methods. By using online questionnaire surveys, teachers can easily gather academic feedback from students, which is not only more efficient but also prevents statistical errors that can arise in traditional questionnaire surveys. Meanwhile, the methods of self-evaluation and peer evaluation by students can help teachers have a more comprehensive understanding of their learning situation and the problems they encounter in learning [11-12]. In addition, teachers can also use new media platforms to provide real-time learning feedback and suggestions for students. The use of new media tools can enhance teacher guidance by assisting students in self-reflection and improvement, allowing them to grasp knowledge and skills more effectively [2].

4.6. Innovate and Construct a Long-Term Mechanism for the Curriculum

To achieve the expected result of college English education in the Internet plus era, teachers must actively change their teaching concepts to meet the individualized requirements of the time, highlight the important value of Internet plus education, and utilize Internet thinking to implement corresponding teaching activities. College English teachers should strengthen communication with students, timely grasp their learning dynamics, facilitate teachers to adjust their teaching ideas promptly, continuously enrich their knowledge reserves, and facilitate the smooth implementation of subsequent modern teaching activities. Constructing a long-term mechanism of curriculum is an important step in college English education in the era of Internet Plus. In the era of Internet Plus, college English teaching should make long-term plans for overall development and set scientific English teaching goals. To construct a long-term mechanism, it is essential to prioritize the overall situation, conduct scientific research, utilize varying teaching models, actively integrate English teaching resources, achieve maximum effectiveness in English classroom teaching, and encourage the comprehensive development of students [13].

5. Conclusion

Exploring and practicing innovative paths in English education has become an important issue in education as a result of technology. With the rapid development of new media technology, English

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education is facing unprecedented opportunities and challenges. To adapt to the changing times, it is necessary to revisit the teaching methods, resources, and models of English education in this context.

Firstly, the integration of new media technology has brought abundant resources and innovative teaching tools to English education, such as online courses, virtual classrooms, interactive learning platforms, etc. These tools not only improve teaching efficiency and fun but also provide students with more flexible and diverse learning methods. Educators should actively investigate how new media technology can be applied in English education, challenge traditional teaching frameworks, and encourage innovation in teaching models.

Secondly, in response to the challenge of a lack of mature models for the use of new media, people have to continuously research and practice to develop an innovative path for English education that is adaptable to the new media environment. This involves conducting a thorough investigation into the characteristics and application scenarios of new media technology, as well as examining teaching models and strategies that are conducive to English education. Strengthen teacher training, and improve their information literacy and teaching ability, so that they can better use new media technology for teaching; In addition, enhance the construction of evaluation and feedback mechanisms to make sure that new media technology is effectively utilized in English education.

In addition, English education innovation must emphasize the development of students' autonomy in learning and innovation abilities. The rapid changes in social demands necessitate students to have the ability to think independently and solve problems in the new media environment. Educators should encourage students to use new media technology for self-directed learning and exploration, stimulate their innovative thinking and creativity, and cultivate their comprehensive qualities and competitiveness.

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